Milesight

Smart Traffic Congestion Warning System in Barcelona

📍 Barcelona, Spain

Location	Industry Segment	Related Products
Barcelona, Spain	Traffic Management	AI Road Traffic Radar Pro Bullet Plus Camera

Overview

- Barcelona, one of Spain's busiest transport hubs, faces severe traffic congestion during peak hours.
- To address this challenge, the Spanish Ministry of Transport deployed a smart congestion detection and warning system using three Milesight AI Road Traffic Radar Pro Bullet Plus Cameras installed at key monitoring points in the city.
- This system aims to detect traffic congestion in real-time and proactively alert drivers to improve road efficiency and safety.
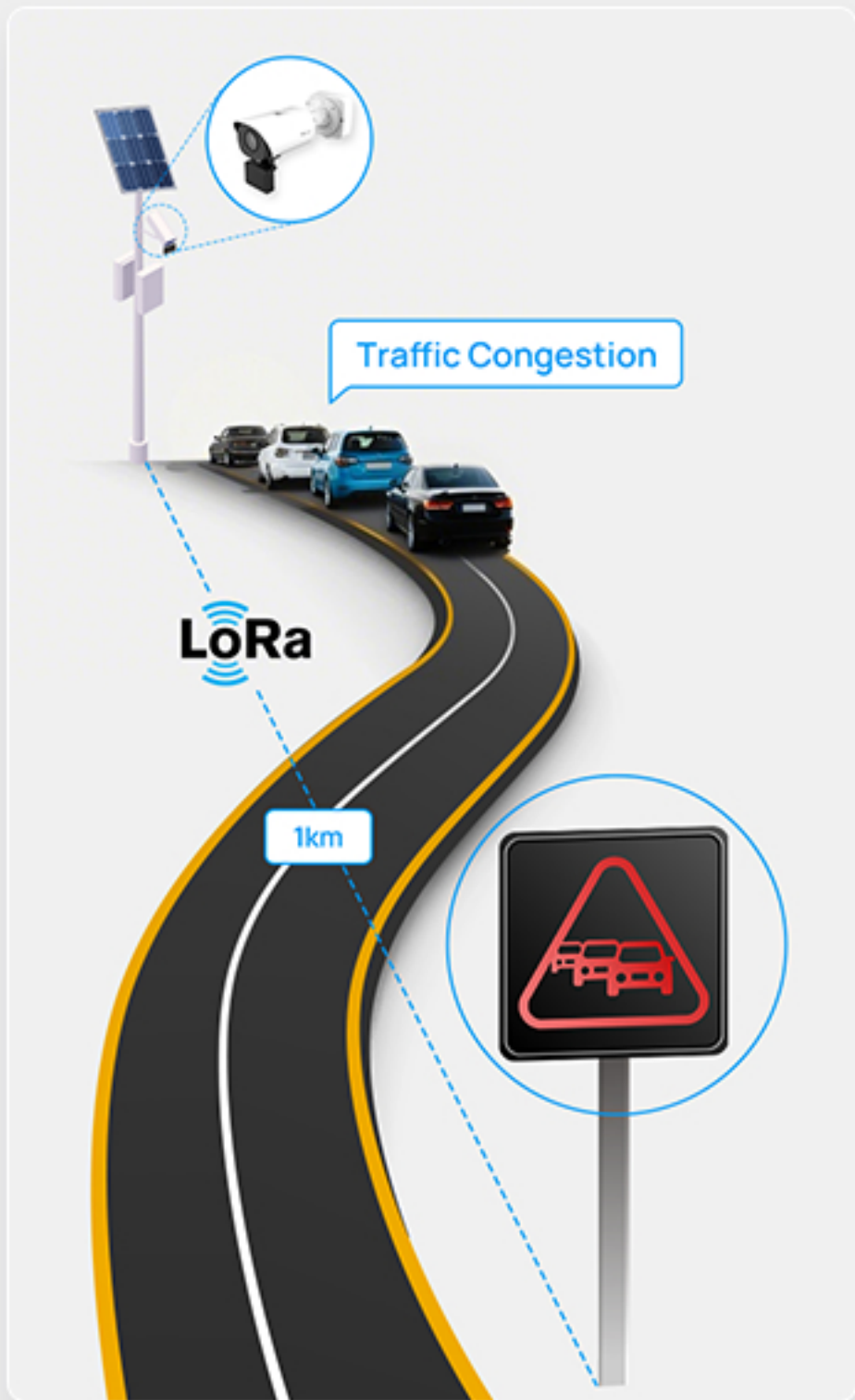
Solution

✅ Real-Time Congestion Detection:
Milesight cameras with built-in radar sensors continuously measure the average vehicle speed. When the speed drops below a predefined threshold, the system automatically identifies the situation as traffic congestion.

✅ Remote Alert Activation via LoRa:
Once congestion is detected, the system sends a remote signal via LoRa communication to an electronic sign located 1 km away. The sign is activated using one of two flexible triggering methods: alarm output or HTTP. Upon activation, the sign lights up with a visual congestion warning symbol in real-time, alerting approaching drivers to slow down or prepare for possible delays ahead. This immediate visual cue helps improve driver awareness and contributes to smoother traffic flow.

✅ Energy-Efficient Deployment:
To ensure sustainable operation, each Milesight camera is paired with a solar panel. This combination allows the system to function independently from the grid, and reducing energy consumption, especially in remote or off-grid locations.

Conclusion

The implementation of Milesight's smart traffic solution in Barcelona has **significantly reduced traffic congestion during peak hours and improved overall traffic flow**. With real-time detection, long-range communication, and sustainable power supply, this project demonstrates an innovative approach to modern traffic management.

Traffic Congestion

Product Showcase

AI Road Traffic Radar Pro Bullet Plus

- Real-time Speed Measurement
- Traffic Violation Detection
- Integrated 3D Radar
- Intelligent AI-powered LPR Algorithm
- 4 Lanes Monitoring at Once
- 4X/12X AF Lens & 90fps High Frame Rate